

ANNUAL REPORT

BY

Medical Officer of Health.

CARDIFF:
JOURNAL OF COMMERCE PRINTING WORKS, 10, MILL LANE.

Llandaff & Dinas Powis
Rural District Council.

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FOR THE YEAR 1912

BY

RICHARD PRICHARD, M.D., D.P.H.,
Medical Officer of Health.

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TO THE

CHAIRMAN AND MEMBERS

OF THE

Llandaff and Dinas Powis

Rural District Council.

GENTLEMEN,

I beg to present to you my Twenty-sixth Annual Report, being that for the year 1912.

The "Memorandum to Medical Officers of Health on the preparation of their Annual Reports," recently issued by the Medical Officer to the Local Government Board, directs that one should report "on the sanitary circumstances, the sanitary administration, and the vital statistics of the district." The Board "desire to obtain not only definite general information, but record also of particular changes of condition that may have occurred incidentally or by action of the Sanitary Authority." The report is expected to supply an index of the public health work accomplished during the year, and of that which remains to be done. It should treat in detail about the population; water supplies; pollution of streams; drainage and sewerage; scavenging; the work done by the Inspectors of Nuisances; Schools; Food; Housing, etc.; and give "an account of any influences threatening the health of the district,

the prevalence of infectious or epidemic diseases therein, and the measures taken for their prevention." "With regard to such points it should be remembered that these reports are for the information of the Board and of the County Council as well as of the District Council, and that a statement of the local circumstances and a history of local sanitary questions which may seem superfluous for the latter may often be needed by the former bodies."

The following pages will, as far as possible, supply the details which are indicated in these demands.

The tables of the general and infant mortality are similar to those in last year's report. I have also compiled a special table giving the number of births, and of the deaths from the principal diseases, in each parish.

PHYSICAL FEATURES.

The District is an irregular oblong whose longest diagonal from north-east to south-west is about 18 miles, and it is about 8 miles at its widest part. Its area is 65,469 acres, or 102.29 square miles, exclusive of area covered by water. From east to west it is bounded on the south by the County Borough of Cardiff, the Penarth Urban District, and then by the Bristol Channel except opposite the Barry Urban District. Along the western boundary are the Cowbridge Rural and Urban Districts, and the Llantrisant and Llantwit Vardre Rural: the last District extending along the north as far as the Taff river. Thence the Caerphilly Urban District extends along our northern boundary as far as the Rhymney river which constitutes our eastern limit, and divides the County of Glamorgan from that of Monmouth.

Hence from its proximity to several populous centres, in which there are always persons anxious to get out into the country to live, where they may be able to keep live stock, it is found that cottages are seldom empty for long, and that newly erected houses are soon occupied.

The District includes portions of three most important valleys and rivers in the county, viz.: the Rhymney, Taff and Ely. It is of an undulating character with a natural declivity

towards rivers; and hence it lends itself readily to effectual drainage. The ground rises on the north to 84 feet above ordnance datum at Whitechurch, to 175 feet at Llanishen and some 50 feet more at Lisvane, then finally and rapidly to nearly 900 feet on Cefn-On hill. To the west of the river Taff, the city of Llandaff stands at about 80 feet, Radyr Village at about 150 feet: thence the altitude increases on the north and west to 500 feet at Pentyrech Village, nearly 600 feet at Penygarn, and afterwards rapidly to over 1,000 feet on Garth Hill. The "Vale of Glamorgan" lies to the south and west. That part of it within your District is seen to dip into the Ely Valley and then rise abruptly to a height of nearly 400 feet at St. Nicholas and Bonvilstone, beyond which it gradually slopes towards the Bristol Channel.

Geologically, the District is situated partly on the coal measures, but to a greater extent on rocks of various ages, including mountain limestone, dolomitic limestone, conglomerate, lower lias, etc. The portion overlying the coal measures is hilly, but from the southern edge of the coalfields to the sea it is comparatively flat.

The Llandaff and Dinas Powis Rural District is composed of thirty-four parishes, varying in population from about 20 souls in Llanvethin, to over nine thousand in both Llandaff and Whitechurch. Its situation from a sanitary aspect is most important, inasmuch as it surrounds to landward the large Urban seaports of Cardiff, Penarth, and Barry; and it contributes largely to their food supply, as well as that of the teeming mining centres beyond the boundary on the north. The District is mainly agricultural and residential; but it also contains important industries, such as tinplate works, collieries, quarries, brick, patent fuel, lime and cement works; bacon and sausage factories, breweries, laundries, railway workshops, and several others.

A considerable number of coal miners and other workmen residing in your district go back and fore daily to different localities in the Taff and Rhymney Valleys, where the house accommodation is insufficient.

The Workhouse for the aged and the Children's Homes are at Ely, Llandaff; the Cardiff and Barry Truant Schools are at Dinas Powis, St. Andrew's; and the Cardiff Mental Hospital for treatment of the Insane is at Whitechurch.

DEVELOPMENT.

Quite recently your Surveyor (Mr. Holden) gave a summary of the development of the District during the last twenty-five years. The following extract will be instructive:—

Approximate population in 1887	...	...	...	17,364
„ „ 1912	...	...	...	33,904
Increase (over 95 per cent.)				16,540
Rateable value in 1887	...	...	...	£171,757
„ 1912	...	...	...	£320,608
Increase (over 85 per cent.)				£148,851

Length of Streets and Roads, 240 miles in 1887.
 „ „ 250 „ 1912.

The cost of the annual maintenance has increased from £2,800 in the former period to £11,984 in the latter.

In the last ten years alone the following important works have been carried out:—

Waterworks, Sewers and Sewerage Outfall Works...	£33,912
Isolation Hospital	£14,500
Private Street Works & Public Road Improvements	£21,270
Total cost	£69,682

During the 25 years plans for 2,780 houses and 436 other buildings have been approved, as complying with the strict letter of the bye-law.

AREA.

The Area of the District, exclusive of land covered by water, is 65,469 acres, *i.e.*, over 102 square miles.

POPULATION.

The census population was 33,200. The estimated population in the middle of the year was 34,750. That is an increase of 1,550 souls since the last census, and is arrived at by assuming that it has gone on increasing at the same geometrical ratio as during the preceding decennium. As a matter of fact it is increasing at a more rapid rate than that. This year alone water certificates were granted to 266 new houses, which at the rate of only four per house would amount to an addition of over one thousand inhabitants; and the registered births were 477 in excess of the deaths during the year.

BIRTHS.

Eight hundred and fifteen births were registered as belonging to the District during the year—two having been born outside. The total number is five higher than the previous year, which was the record hitherto. The birthrate is equal to 23.41 per thousand of the estimated, and 24.5 of the census population; and it is 1.49 below the average of the previous five years.

According to sex 418 were males and 397 females. Seven (three males and four females) were illegitimate; leaving 808 who were born in wedlock.

The birthrate for all England and Wales last year was 23.8; and less the towns 22.6.

DEATHS.

Three hundred and thirty-eight deaths were registered of persons belonging to the District. Of these 183 were males and 155 females. This total is 51 less than in 1911, and 8 less than 1910. The mortality is equal to the abnormally low rate of 9.72 per thousand of the estimated, and 10.17 of the census, population. It is 1.79 below the average of the five years immediately preceding. This state of things was brought about by the weaklings being unable to survive the drought of 1911; while the cool summer of last year was accompanied by unprecedented low infant mortality. Moreover, there was no general prevalence of epidemic diseases.

The deathrate of the whole of England and Wales last year was 13.3; and of rural districts 12.1 per thousand.

Corrections.—There were eighty-eight deaths of non-residents which were registered in this District, but which were transferred “outwards” or credited by the Registrar-General to the localities where they were domiciled. For instance, 78 deaths at the Cardiff Mental Hospital will appear in the mortality of Cardiff and other places, where they originally came from for treatment. Seven strangers were drowned in the District. On the other hand, 35 deaths (26 males and 9 females) of residents occurred at public institutions and elsewhere outside. These are included in the mortality of the District; and so are five “unknown” corpses found and unidentified.

The natural increase in the population, during the year, by excess of births over the deaths was 477, viz., 234 males and 243 females. The male deaths exceeded the females by 30, but the male births were 21 more.

Thirty-nine deaths of residents and non-residents were inquired into by the Coroners; the remainder were certified by medical practitioners.

TABLE I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1912 AND PREVIOUS YEARS.

Year.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS registered in the District.		TRANSFERABLE DEATHS.		Nett Deaths belonging to the District.		
		Number.	Rate.	Number.	Rate.	Of Not- residents registered in the District.	Of Resi- dents not registered in the District.	Under 1 year of Age. Number.	At all Ages. Number.	Rate.
1907	29,056	749	25.77	324	11.15	9	9	78	324	11.15
1908	30,153	766	25.41	345	11.40	34	9	76	320	10.61
1909	31,292	804	23.69	397	12.68	92	10	68	315	10.06
1910	32,474	775	23.89	388	11.97	71	18	73	335	10.31
1911	33,505	810	24.14	421	12.56	85	42	81	389	11.61
1912	34,750	815	23.41	387	11.13	88	39	50	338	9.72

Infant Mortality.—The deaths of children under one year old numbered fifty, which are equal to a rate of 1.43 per thousand inhabitants, and amount to 14.9 per cent. of the total deaths. Of the above number 27 were males and 23 females.

The proportion of young children to adults in any community will naturally vary with the number of married women of child-bearing age in the locality. In agricultural districts, whence persons in early adult life migrate to populous industrial centres, there will be comparatively fewer young mothers in the former, and therefore fewer children, consequently the infant mortality will form a small proportion of the general deathrate. For the purpose of comparing the infant mortality of one district with another, which is essential in vital statistics, one must, therefore, calculate it by the number of registered births in a given area, because the births will constitute, so to speak, the approximate infant population of that area. On this basis, the infant deathrate last year amounted to 61 per thousand registered births, as compared with an average of 96 for the previous five years.

TABLE II.
INFANT MORTALITY.

1912. Nett Deaths from stated causes at various Ages
under 1 Year of Age.

CAUSE OF DEATH.	Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 4 weeks.	4 weeks & under 3 months	3 months & under 6 months	6 months & under 9 months	9 months & under 12 months	Total Deaths under 1 year
Whooping Cough	...	1	...	...	1	...	2	2	...	5
Convulsions	1	1	1	..	3	...	...	...	1	4
Bronchitis	...	...	1	2	3	2	1	...	...	6
Pneumonia (all forms)	...	...	...	...	...	...	1	1	...	2
Diarrhoea and Enteritis	...	2	...	...	2	1	2	...	1	6
Gastritis	...	...	...	...	...	1	...	2	...	3
Suffocation, overlying	...	...	...	...	...	1	...	...	...	1
Atelectasis	1	...	...	...	1	...	...	...	...	1
Congenital Malformations	2	...	...	...	2	...	1	...	...	3
Premature Birth	8	1	...	...	9	2	...	...	...	11
Atrophy, Debility and Marasmus	...	1	...	1	2	...	..	1	...	3
Other Causes	2	...	...	...	3	1	...	1	...	5
	14	7	2	3	26	8	7	7	2	50

It will be seen that last year there were only nine deaths from Diarrhoea and Enteritis, as against 33 in the year before. Premature birth accounted for eleven deaths: and Whooping Cough, which is so fatal to infants, caused five deaths. The cool summer, and the comparatively mild spring and autumn, tended to the survival of persons of feeble constitution. There were 31 fewer deaths at this age period than in the previous year.

The next Table (III.) shows the total deaths at the different age-periods, as well as the number who died in public institutions within and without the District.

TABLE III.

Causes of, and Ages at Death during the year 1912.

CAUSES OF DEATH.	Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.									Total Deaths whether of "Residents" or "Non- Residents" in Institu- tions in the District.
	All ages	Under 1 year	1 and under 2 years	2 and under 5 years	5 and under 15 years	15 and under 25 years	25 and under 45 years	45 and under 65 years	65 and upwards	
Enteric Fever ...	4	...	...	...	...	2	2	...	...	2
Small Pox (?) ...	1	...	...	...	...	1	...	...	...	...
Measles ...	5	...	3	1	1	...	...	...	...	...
Scarlet Fever ...	2	...	...	2	...	...	...	...	...	1
Whooping Cough ...	6	5	1	...	...	...	...	...	...	...
Diphtheria and Croup ...	5	...	...	2	3	...	...	...	...	3
Influenza ...	5	1	...	...	1	...	1	1	1	...
Phthisis (Pulmonary Tuberculosis) ...	32	...	...	1	1	9	16	5	...	25
Tuberculous Meningitis ...	3	...	1	...	...	1	1	...	...	1
Other Tuberculous Diseases ...	2	...	...	...	1	1	...	...	...	1
Cancer, malignant disease ...	22	...	...	...	...	...	2	14	6	6
Meningitis ...	2	...	...	...	...	1	...	1	...	...
Organic Heart Disease ...	29	...	...	...	...	...	3	15	11	15
Bronchitis ...	27	5	...	1	1	...	2	4	14	5
Pneumonia (all forms) ...	20	2	3	1	...	...	1	5	8	9
Other diseases of respiratory organs ...	5	...	...	...	...	...	...	3	2	1
Diarrhoea, Enteritis & Gastritis ...	9	9	...	...	...	...	...	...	...	...
Appendicitis and Typhlitis ...	2	...	...	1	...	...	1	...	...	2
Cirrhosis of Liver ...	3	...	...	...	...	1	1	...	1	1
Nephritis & Bright's Disease ...	13	1	...	...	1	1	2	3	5	7
Puerperal Fever ...	1	...	...	...	...	...	1	...	...	...
Other accidents and diseases of Pregnancy & Parturition ...	1	...	...	...	...	...	1	...	...	...
Congenital Debility and Malformation, including Premature Birth ...	18	17	1	...	...	...	...	...	...	...
Violent Deaths, excluding Suicide ...	15	2	1	1	2	1	3	3	2	3
Suicide ...	6	...	...	...	...	1	3	2	...	...
Other Defined Diseases ...	91	1	...	...	5	3	10	19	53	39
Diseases ill-defined or unknown ...	9	7	...	1	...	...	...	1	...	...
	338	50	10	11	16	22	50	76	103	121

It will be observed that there were ten deaths of children (4 males and 6 females) between one and two years old, of whom three were caused by Measles, and three by Pneumonia.

Between the ages of two and five years eleven children (5 males and 6 females) died. Measles caused one death, Scarlet Fever two, and Diphtheria two.

Between 5 and 15 years there were sixteen deaths (9 males and 7 females). Measles was responsible for one death, Diphtheria three, and Accidents two. Between 15 and 25 years twenty-two deaths occurred, viz., 16 males and 6 females. Eleven (one-half) were caused by Tubercular Diseases.

During the age period 25 to 45 years there were fifty deaths, viz., 31 males and 19 females. Tubercular Diseases caused 17; Enteric, 2; Cancer, 2; Heart Disease, 3; Bronchitis, etc., 3; Parturition, 2; and Violence, 6.

From 45 to 65 years there were 76 deaths—the sexes being equal. Phthisis caused 5; Cancer, 14; Heart Disease, 15; Acute Pulmonary Complaints, 12; and Violence, 5.

During the period of old age, i.e., 65 years and upwards, 103 deaths occurred, viz., 54 males and 49 females. Cancer killed 6; Heart Failure, 11; Acute Chest Diseases, 24; Bright's Disease 5; and Accidents, 2. Thirty (17 males and 13 females) were 80 years and upwards at death. Two—a male and female attained to 91 years, and a female 97 years.

The next table is inserted to show how the District compares with England and Wales:—

TABLE IV.

PROVISIONAL VITAL STATISTICS FOR 1912.

	Annual Rates per 1,000 living.			Deaths under 1 year to 1,000 births.
	Births.	Deaths.		
		Crude.	Corrected. ^c	
England and Wales ...	23.8	13.3	13.3	95
95 great towns, including London	24.9	13.8	14.6	101
146 smaller towns ...	23.8	12.4	13.0	99
England and Wales, less the 241 towns	22.6	12.9	12.1	86
London	24.7	13.6	14.3	90
LLANDAFF AND DINAS POWIS R.D.C.	23.41	9.72	9.92	61

* The corrected death-rates are the rates which would have been recorded had the age and sex constitution of the populations of the several areas been identical with that of England and Wales as enumerated in 1901. The corrections applied to the crude rates have been necessarily based upon the constitution of the populations of the areas as enumerated in 1901, and are therefore only approximately applicable to the conditions of 1912. The factor for correcting the general rate of the District is 1,0145.

Although many parts of our District are becoming increasingly urban in character, and thereby subject to town influences, the above figures are much better than even rural England and Wales.

CANCER.

Malignant diseases caused twenty-two deaths, viz., 5 males and 17 females. Even allowing 7 deaths from disease in special female organs, it was twice as prevalent in women as in men. The average for the preceding ten

years being 16.6. The total amounts to 636 per million inhabitants; and it includes all deaths of persons belonging to the District which occurred at public institutions elsewhere. There is no evidence that the disease is increasing.

TUBERCULAR DISEASES.

There were 32 deaths, viz., 20 males and 12 females, attributable primarily to Phthisis or Pulmonary Tuberculosis, and five to other tubercular diseases. The death rate from Phthisis is equal to .92, and from all Tubercular Diseases 1.06 per 1,000. The deaths from Phthisis occurred mostly during the ages of human activity and usefulness. For instances, between the ages of 15 and 25 years, there were nine deaths (8 males and 1 female); 25 to 45 years, sixteen (10 males and 6 females); 45 to 65 years, five (1 male and 4 females). During the last five years the certified deaths from tubercular complaints numbered 165, as against a total of 92 from the six chief infectious diseases. Forty-three cases of Phthisis were notified during the year, but some only a day or two before death.

The Public Health (Tuberculosis) Regulations, 1912, will shortly come into operation throughout the country. By them every case of tubercular disease of whatever kind has to be notified; and reported weekly by the district medical officer to the County Medical Officer. Inquiries have to be made in all cases as to the probable cause, etc., but such must not be conducted in such a way as to cause annoyance to patients or their friends. The Council, by an annual subscription to the Cardiff Public Health Laboratory, offer facilities to all medical men practising in the district to have suspected tubercular sputum and other material examined free of charge. They have freely availed themselves of this privilege during the past year, and the reports and specimens usually pass through my hands. The question of putting up shelters in the grounds of the Ely Isolation Hospital for the treatment of cases of Phthisis was recently under the consideration of the Council, and it was decided by a majority not to undertake the work. Although I pointed out that, in my opinion, it was practicable to do so, I am not disposed to contest the wisdom of the decision. The members fully realised the necessity of doing everything in their power to combat the "White Plague," but they were loath to do anything which might, in any way, diminish

the great and increasing popularity of the present isolation hospital, and thus reduce its usefulness.

The King Edward Welsh National Memorial Association has recently purchased Glan Ely, and will be enabled to deal with a large number of consumptives; but it will scarcely be able to cope with local requirements. During one's investigations, it is soon evident that there is a keen desire for sanatorium treatment, which, alas! does not always produce the expected results. The failures, when they occur, may be due to the attempt to find a specific cure such as Tuberculin, etc. and that to the exclusion of drugs and other constitutional fortifiers.

The following leaflet is issued for the guidance of those having care of tuberculous patients:—

“SYMPTOMS.—Loss of energy or weight; cough; blood-spitting; indigestion; shortness of breath; anæmia; sweating at night. A doctor should be consulted if suffering from any one of the above as it may be the early signs of phthisis.

CAUSES.—Low state of health; overcrowding; dampness; dark, dirty, ill-ventilated rooms; intemperance; bad food, etc. These conditions render the body weak and a ready breeding-ground for the disease—the real cause is the breathing in, or swallowing of, the germs, which may be found in millions in the phlegm or spit of a consumptive patient.

PRECAUTIONS.—The patient should keep out of doors as much as possible, even in wet and cold weather. Fresh air and sunshine tend to weaken and kill the germs. Boiling or burning destroys them. Don't rely on disinfectants alone. Sleep alone, and, if possible, in a separate room—from which all hangings, wall-paper, and all unnecessary articles of furniture have been removed. *When in bed*, don't cough over the bed-clothes or against the wall, but hold a piece of paper in front of the mouth, and then have it burnt. Spit into a vessel containing a disinfecting solution or on paper and burn it at once. *Out of doors* use a pocket spittoon, or a wide-mouthed bottle having a well-fitting cork. Don't cough over any article of diet, and don't handle food with un-washed hands.

The spittle or phlegm should not be allowed to dry (that is the great danger) and so mix with the dust and air of a room: it should not be swallowed. The room should be cleansed daily with *damp dusters*, and the floor swept, using wet tea-leaves

or wet saw dust. Then boil the dusters; burn the tea-leaves or saw-dust. No one ought to kiss a consumptive patient on the mouth or use the same cups, glasses or spoons, etc., until they have been washed in boiling water.

The patient should never spit on the floor of a cab, tram-car, railway or other carriage; nor in any public building, such as a church, school, station, etc., nor on a footpath. It is a filthy and very dangerous habit.

The room or bed which has been used by a consumptive patient should not be occupied by anyone else until it has been thoroughly disinfected by the Sanitary Inspector.

Remember This:—With proper care, early cases of consumption should get well, and advanced cases should not be a source of danger to others."

By arrangement with the Council, the Sub-District Registrars notify to me at once, on a provided form, every death registered from tuberculosis, so that the premises occupied may be thoroughly disinfected as soon as possible. The bedding, etc., are taken to the steam disinfector.

ZYMOTIC DISEASES.

This term is employed to indicate those contagious or infectious fevers which often spread in epidemics. They are supposed to originate from a specific germ or "ferment," which is contracted from a previous patient. The virus or poison is conveyed directly from one to another, or indirectly by means of clothing, food, etc. In most of the eruptive or rash-producing fevers, the disease makes such an impression on the patient as to render him or her immune or insusceptible to future attacks. Each disease is "specific," or it "breeds true"; that is, measles breeds measles, etc. The attack will vary in intensity in every case, depending on the soil in which it is planted. The micro-organisms of Cholera, Diphtheria, Enteric, Malaria, Plague, etc., are familiar to bacteriologists.

The principal epidemic diseases caused thirty-two deaths, viz., Enteric, 4; Small-pox, 1; Measles, 5; Scarlet Fever, 2; Whooping Cough, 6; Diphtheria, 5; and Diarrhœa and Enteritis, 9. The above number is equal to a rate of .92 per thousand inhabitants.

The next Table gives the number of deaths from the Zymotic and Septic Diseases since 1887.

TABLE V.

	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
Small-pox	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Measles	...	2	9	2	2	...	1	2	5	3	8	1	...	...	...	5	3	6	5	2	6	5	...	4	1	5
Scarlet Fever	...	...	...	1	9	10	6	...	1	2	1	...	...	...	2	8	8	6	...	2	2	2	2	2	1	2
Whooping Cough	...	2	2	1	3	2	6	2	1	4	19	1	...	10	8	1	7	9	11	9	5	6	19	4	3	6
Diphtheria and ...	1	1	6	1	1	3	3	3	2	5	7	2	2	2	19	5	11	6	6	7	3	4	5	3	4	5
Membranous Group	1	1	...	...	2	4	3	2	2	3	4	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...
Enteric Fever	4	2	7	2	5	3	3	6	4	5	...	3	2	1	3	1	1	...	1	2	3	...	1	...	...	4
Continued Fever	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza	...	...	...	2	13	10	10	4	12	3	...	...	...	7	3	...	1	3	2	12	5	3	7	6	1	5
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea	...	25	5	13	4	10	12	20	1	2	18	20	17	28	7	4	5	3	6	7	18	6	12	2	3	4
Puerperal Fever	...	3	4	1	2	1	1	...	1	1	3	...	...	...	...	...	...	...	...	...	2	1	1	1	...	1
Erysipelas	...	1	2	1	...	...	1	2	...	1	...	...	1	...	1	...	...	...	1	1	...	...	...	1	...	...
Totals	...	39	20	48	18	46	50	51	32	34	59	44	23	43	44	20	37	32	39	32	44	34	47	21	24	60

Since 1887, the population has increased nearly 100 per cent. Furthermore, when the Local Government Act, 1894, came into operation in 1895, the parishes of Rumney and St. Mellons (in the County of Monmouth), with a population of 1,190, were transferred to the St. Mellon's Rural District Council, and the parishes of Llanvedw and Rhydygwrn (in the County of Glamorgan) with a census population of 559, became a portion of your District.

The next Table gives the number of cases of Zymotic Diseases reported since "The Infectious Diseases (Notification) Act, 1889," was adopted in this District, and became operative, with Whooping Cough included, on 1st April, 1890. Seven cases of Small Pox were notified in 1887. Seven cases of Scarlet Fever, one Measles, and seven Typhoid Fever were notified in the first quarter of 1890, before the Act came into force. In view of threatened Outbreak of Cholera, Diarrhea was a notifiable disease for 34 days in 1894, when 16 cases were reported.

TABLE VI.

NOTIFICATIONS.

	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
Small-pox (?)...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	1	...	...	...	...	...	...	...	1
Diphtheria ..	4	3	10	37	29	15	25	27	42	47	112	41	77	65	111	53	70	54	85	39	48	54	67
Membranous } Group }	...	2	4	3	3	3	2	2	...	1	1	...	...	2	...	...	...	...	...	...	...	...	
Scarlet Fever	38	318	257	161	44	88	98	45	28	43	86	116	238	174	60	48	95	46	90	151	140	73	76
Enteric "	19	31	18	28	28	19	15	7	17	10	6	9	16	5	5	8	11	13	6	6	4	10	13
Continued "	2	...	...	3	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	
Purperal "	2	2	2	1	...	...	...	...	3	...	...	...	1	...	1	...	2	...	3	3	2	3	4
Whooping C.	15	12	88	50	203	89	274	49	80	201	112	31	65	212	169	220	62	186	432	115	134	281	233
Phthisis	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	1	2	1	2	9	5	10	43
Erysipelas	2	6	6	9	6	8	6	6	11	11	7	9	13	17	5	19	19	14	10	25	14	4	15
	82	374	385	292	313	222	420	136	181	313	324	207	411	485	353	349	261	314	628	348	347	435	452

SMALL-POX.

As reported at the time, I received a notification of above on 12th June, and I immediately communicated with the doctor in charge of the case. As he was uncertain about it, I visited the patient with him at once. She was a newly married woman, aged 24 years, who had taken ill three days before, although she had a rash on the hands, followed later on the feet, since 7th June. She had never been vaccinated. On the 10th June she became very ill; when I saw her on 12th she was moribund from blood-poisoning, and she died that afternoon. There were few pustules on the back of the hands and feet; none elsewhere. There was no evidence of small-pox. The patient had aborted on 12th June but this appeared to be the result rather than the cause of the disease. It seemed to be a case of Septicaemia, following Acute Pemphigus. Every precaution was taken, and disinfection carried out.

CHICKEN-POX.

This complaint was again very prevalent in some parishes towards the autumn: 104 cases were reported by teachers as occurring among scholars. Many more were absentees from contact.

MEASLES.

Fatal, 5, all of them females, the respective ages being 16, 18 and 21 months; 3 and 5 years. It also accelerated death in a girl of 14 years, suffering from tubercular disease of the arm. The death rate was equal to .14 per thousand.

There were 225 cases among scholars in the District, and many more "contacts" who probably developed the disease later. In the "Memorandum on Measles" issued by the Medical Officer of the Local Government Board, in March, 1911, occurs the following paragraph:—"Older children are usually permitted to attend the boys' and girls' departments of schools from families in which there is at the time a case of Measles. There is no evidence that this practice leads to the spread of infection, whether this result be due to the fact that the infective material is seldom carried in clothes, or to the fact that most of the children in these departments of schools are already protected," by a previous attack. The policy enumerated above, it appears to me, is unfortunate. It gives a lead to school authorities, who have always got the "grant"

in mind, to urge attendance of children from infected houses; and their example tends to make the parents more careless not only in respect of Measles but also of other contagious complaints. There is no more evidence that the "infective material" of measles is less likely to be carried by clothing than is that of Scarlet Fever or Diphtheria. In fact, the reverse seems nearest the truth. The great desideratum is how to postpone the attack beyond the fifth year of life, when the risk of fatal termination rapidly diminishes. Notification of cases is of little value. Any means which makes the mother more careful would be of great value. Leaflets, giving simple instructions and pointing out the great dangers, might be distributed by the aid of Attendance Officers, or, better still, the school children. Lectures, conveying the same information, might be given to the senior scholars, both boys and girls. I have always found teachers most anxious to assist in preventive work of this kind.

SCARLET FEVER.

Notified, 76.

Fatal, 2.

The mortality is equal to .05 per thousand living. The case mortality, or deathrate amongst the cases notified was 2.63 per cent. The notifications or sickness rate amount to 2.18 per thousand inhabitants, that of England and Wales being 2.98 during the year. Over 72 per cent. of the cases were isolated in hospital. There was no particular prevalence of the disease at any period of the year. But the removal of so many cases to your Hospital prevented a more general outbreak, if not an epidemic. Two cases from the neighbourhood of Bridgend were received into the Isolation Hospital as paying patients.

The number of cases in each Parish may be seen from the next Table, VII.

WHOOPIING COUGH.

Fatal, 6.

Rate, .17 per thousand living

Two hundred and thirty-three cases were notified during the first three months of the year before the Order was rescinded. The respective ages of those who died were 20 days, 3, 3, 7, 7 and 15 months. All females. The remarks which have been made about postponing the attack of Measles apply with even greater force to Whooping Cough. It is

particularly fatal during the first year, and every additional year to which the attack can be warded off adds greatly to the chance of recovery. Further, were these young infants to receive hospital treatment, their chances of recovery would be greatly enhanced. But if this was decided on, it would be necessary to give the nursing mother the opportunity of accompanying her child while it was undergoing treatment.

By a resolution of the Council, Whooping Cough ceased to be a notifiable disease on 1st April, 1912, after being compulsorily notified for exactly twenty-two years.

DIPHTHERIA AND CROUP.

Notified, 67. Fatal, 5.

Deathrate, .14 per thousand; and the case mortality, 7.46. The sickness rate was 1.92, as compared with 1.24 for all England and Wales. Forty-four, or over 65 per cent. of the cases notified, received treatment in your Hospital. There were only 8 cases notified in the first quarter of the year, as against 22, 19 and 18 respectively in the others. Neglect of the early use of the anti-diphtheric serum, either through oversight or delay, was accountable for each fatal case.

ENTERIC FEVER.

Notified, 13. Fatal, 4.

Deathrate, .11 per thousand living. Omitting a case of Meningitis notified as Typhoid, the case mortality was 33.3 per cent. The sickness rate was 0.37 per thousand, as compared with 0.23 for England and Wales. Three young children at Llandaff North had probably contracted the disease from their father, who had suffered from it in an unrecognised type. Two cases were of mild abortive kind, apparently Influenza. Five others could not have contracted their illness in your District. Eight cases were removed to your Hospital. Enteric Fever is the one disease in which good nursing and dieting is imperative: and yet two patients were admitted in a precarious state—the one had been given ordinary food, and the other about eight quarts of milk daily! It is not generally recognised, even by the highest medical authorities, that raw

Table VII. Cases of Infectious Disease notified during the Year 1912.

NOTIFIABLE DISEASE.	Number of Cases Notified.								Caerau.	Leckwith	Lisvane.	Llandaff.	Llanedarn.	Llanishen.	Llantrithyd.	Llanvedw.	Pentyrch.	Porthkerry.	Radyr.	Rhydygwern.	Rudry.	St. Andrews.	St. Bride- super-Ely.	St. Fagans.	St. Nicholas.	Sully.	Welsh St. Donatts.	Wenvoe.	Whitchurch.	Total Cases Removed to Hospital.
	At all Ages.	Under 1 year.	1 to 5 years	5 to 15 years	15 to 25 years	25 to 45 years	45 to 65 years	65 years and upwards																						
Small Pox ... (?) ...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup) ...	67	...	11	50	4	2	...	...	...	1	...	12	...	1	...	...	5	...	...	...	1	1	...	...	...	...	1	...	45	43
Erysipelas ...	15	...	1	1	1	4	6	2	...	...	1	1	1	1	...	...	3	...	2	1	...	...	...	...	...	...	...	...	5	...
Scarlet Fever ...	76	1	15	50	5	5	...	...	...	...	...	20	...	5	...	...	8	...	2	1	...	3	...	3	1	...	...	13	20	55
Enteric Fever ...	13	...	...	4	4	5	...	...	...	...	...	1	...	1	...	...	2	...	...	...	1	2	2	...	...	...	...	...	4	8
Puerperal Fever ...	4	...	...	...	1	3	...	...	...	...	...	2	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Pulmonary Tuberculosis ...	43	...	1	5	10	24	3	...	...	1	...	17	2	2	1	...	3	1	1	...	1	...	...	1	...	1	...	...	12	...
Whooping Cough ...	233	29	117	80	...	5	2	...	2	...	...	29	...	6	...	...	51	...	25	5	6	...	...	8	...	...	...	1	100	...
Totals ...	452	30	145	190	26	48	11	2	2	2	1	83	3	16	1	1	72	1	30	7	9	6	2	12	1	1	1	14	187	106



milk ceases to be digestible when the patient's temperature rises two or three degrees: and does absolute harm in ordinary pyrexia of fevers. The caseine or curd of milk often cannot be digested by a person enjoying ordinary health: and very seldom by one who is in a slightly febrile state. In such cases the milk should always be pre-digested or peptonised, so as to render the caseine soluble: and then it should be given sparingly. It is our common observation that a patient suffering on admission from diarrhœa and abdominal distension, when placed on this treatment, at once begins to improve and often to convalesce. The same remarks apply to all highly feverish complaints, such as pneumonia, etc.

DIARRHŒA.

Died, 9; all infants. Deathrate, .25 per thousand inhabitants: and 11 per thousand births. Few, if any, of the deaths were due to epidemic diarrhœa, as some occurred during the winter months. There was no general prevalence during the cool summer.

ERYSIPELAS.

Notified, 15.

Fatal, 1.

Most of the cases were adults, and arose from neglect of some trifling wound.

PUERPERAL FEVER.

Notified, 4.

Fatal, 1.

Mortality, .02 per thousand. These cases were septic complications of labour or abortion. One has reason to believe that the latter is sometimes due to preventible causes.

MUMPS.

This complaint was very prevalent in some of the western villages during the autumn, adults as well as the children being affected; 73 cases were reported by teachers.

The next Table (VII.) shows the number of cases of infectious diseases which were notified in the several Parishes, as well as the number that were removed to your Hospital for isolation. There were in addition two cases of Scarlet Fever received from near Bridgend, and a case of Diphtheria from the Parish of Egwysilan.

The next Table gives the number of patients admitted to and discharged from Ely (Isolation) Hospital during the year.

TABLE VIII.

			ADMISSIONS.			Dis- charged	Died
			Scarlet Fever	Diph- theria	Enteric		
January	...	...	2	2	3	4	1
February	...	...	1	1	2	8	...
March	...	...	...	...	...	3	...
April	...	...	1	4	1	1	...
May	...	...	4	6	...	2	3
June	...	...	6	11	1	14	2
July	...	...	7	4	...	15	...
August	...	...	7	3	...	8	...
September	...	...	10	1	1	9	1
October	...	...	8	3	...	13	...
November	...	...	3	6	...	8	...
December	...	...	8	3	...	9	...
			57	44	8	94	7

The total admissions numbered 109: discharged, 94: and 7 died. The latter included two Typhoid: one Tubercular

Meningitis admitted as Typhoid; one malignant Scarlet Fever, and three Diphtheria.

There were seven patients in residence at the dawn of the year, and fifteen on 31st December last.

Four cases, admitted as Diphtheria, had not that disease; nor had three others Scarlet Fever. A case of Typhoid was only mild Febricula. These patients were sent home again after being under observation a few days.

I desire to place on record the excellent and devoted services rendered by Miss Evans, the Matron, and the staff at the Hospital. Many expressions of the gratitude of parents and patients have been received in respect of the kindness shown to them while under treatment.

Nearly all cases of Scarlet Fever and Diphtheria in cottage class of houses were removed to hospital, except, perhaps, it was the only child. Most were admitted on the request of the medical attendant acting on behalf of the parents. I have not the slightest doubt that in so doing a serious outbreak, if not an epidemic, was prevented. Stringent measures were immediately taken wherever milk was imperilled. There is yearly a rapidly increasing number of persons living who have not been protected by a previous attack. This is exemplified by the notifications, which show that over 13 per cent. were above 15 years of age. The capacity of the Hospital was never taxed. In these days, when Germany is constantly held up to us as a model of all the virtues, it is satisfactory to observe that in the matter of isolation hospital accommodation we are far in advance of even Berlin. There it is insufficient; the majority of cases of Diphtheria and Scarlet Fever are nursed at home, frequently under crowded conditions; and disinfection is often inadequate.

" RETURN CASES."

There were three cases of what are known as "return cases," i.e., cases of Scarlet Fever occurred in houses 17, 12 and 11 days respectively after the dismissal of patients from the Hospital. The latter had normal attacks, free from complications, had been in residence the usual period, and every precaution was taken at the time of discharge. The disease must have been contracted several days afterwards. Parents are always instructed to keep the children apart as far as

possible for a fortnight, and especially not to allow them to sleep together. This advice is often disregarded. How is the disease spread? It is possible that clothing, books, toys, etc., are brought out again, after having been put away when the first case was taken to hospital, in order to avoid damage by disinfection. Patients who have suffered from ear or nasal discharges, from adenoids, etc., are known to be liable to convey the infection to others; but the above children were not so afflicted. An attack of "cold" appears to revive the germs in those who have recently suffered. That was so in at least one of the above. The micro-organisms of Scarlet Fever has not been isolated, but it is likely that it may survive in the nose or throat, like those of Diphtheria. Quite recently I heard that a young child had nasal discharge six months after an attack of Diphtheria, which was treated at home. In this case typical Diphtheria bacilli were found. Nurses and attendants on such cases may harbour the germs, and may be the medium of conveying the infection to others without suffering themselves.

SCHOOL CLINICS.

I referred to this matter in my last annual report, and to the necessity of something being done to afford relief from the common complaints of school children. The primary duty of providing treatment appears to rest with the County Council, as the Education Authority, but it seems to be too difficult for them to tackle for the present. The school medical inspectors and the teachers remind parents of the ailments from which the children suffer but many of them are too poor to afford medical treatment, and some make the illness an excuse to keep the child at home to help with the work.

A great many cases of Ringworm, Itch, Eczema, etc., were reported to me last year, most of which are readily amenable to treatment. Expensive X-ray apparatus is quite unnecessary for the cure of Ringworm. A nurse could carry out the treatment under the supervision of a doctor. The Local Government Board has decided that it is the duty of Boards of Guardians to provide treatment for all cases where the parents are unable to provide it. One may say that all rural labourers and those similarly circumstanced will be unable to pay for specialised attention of any kind. In many cases the Guardians' own District Medical Officers could do the greater part of the work for small additional remuneration:

and where operations for removal of tonsils, adenoids, etc., were required, they could be undertaken for a modified fee by those with special experience. I beg to recommend that the Guardians of the Cardiff Union take the lead in this matter in Glamorgan, and, if followed by others, they would relieve the Education Authorities of the necessity to take action.

HOUSING TABLE IX.

gives the number of Building Plans approved by the Council during the year 1912.

1912.	Houses	Shops	Work-shops	Other Buildings
January ...	76	...	1	2
February ...	12	1	1	3
March ...	14	...	...	...
April ..	40	...	...	1
May ...	12	2	2	5
June ...	19	...	...	4
July ...	24	1	1	1
August ...	61	1	2	3
September ...	18	...	...	3
October ...	28	...	...	4
November ...	50	...	...	2
December ...	35	...	...	...
	389	5	7	28

Certificates of the provision of an available supply of wholesome water were granted for the occupation of 267 new houses last year, as against 293, 297, 281, 246, 172, and 169 in the six immediately preceding years. It will be seen that there has been a slight check in the rate of building operations in this district. These new houses were in Llandaff Parish 149, Whitechurch 45, Peterstone 13, Llanishen, Penmark and St. Andrew 10 each, Van 8, Radyr 4, Pentyrch 3, Caerau, Llancaf, Llanedarne, St. Bride's and Sully 2 each, and one each in Bonvilstone, Lisvane, Michaelston-super-Ely, Rudry and Wenvoe. All new buildings are erected in accordance with the Building Bye-laws. All are provided with good water supplies, mostly from the public mains, with drainage and closet accommodation, paved backs, and efficient lighting and ventilation. Although the population of the District is increasing at a fairly rapid rate, but only in proportion to the number of new houses, so that there is no tendency to overcrowding. The four instances of this dealt with were in older cottages. Regular house to house inspections have been made as far as possible, special attention being paid to the older cottages, which are usually kept scrupulously clean. Of these, 185 were inspected in No. 1 District, and 163 notices were served to abate nuisances arising from defective or choked drains, faulty closet accommodation, dampness or defective roofs, floors or windows. In No. 2 District, which is more sparsely populated, 109 similar notices were served. Usually repairs are effected by the owners, provided reasonable time is given in which to carry out the work. It is seldom necessary even to issue a summons. The two old houses known as Gabalfa Cottages were closed under the "Housing and Towns Planning Act," being too delapidated for repair: so also was an old cottage in Drope Lane, St. George's. In District No. 1, eighty-eight houses, and in No. 2, forty-two, were disinfected after infectious disease, or a death from tuberculosis or cancer. I have recently been round the whole of your Council's District, and found the general condition of the cottage property very satisfactory. In the few instances where the thatch was defective the owners were under notice to have the same repaired. Owing to the great increase in the two Inspectors' work of late years, for reasons already specified, the Council have recently had under consideration the question of augmenting the staff: and it has been decided, subject to the approval of the Local Government Board, to

divide the District into three sub-divisions, and appoint an additional Inspector. Each man would thus be responsible for his own particular area; and a more thorough house-to-house inspection, than at present, would then be possible. It is also proposed to have all slaughtering and slaughter houses under the closest supervision. Mr. W. Lewis, Inspector of No. 1 District, gives the following specific details of improvements effected through his instigation. Thirty houses in Cross Street, Maindy, were found to be damp and insanitary. The walls were cemented, the roofs, shutes and down pipes were repaired. Similar nuisances were found to exist in nine houses belonging to Mr. Shapland, in Copleston Road, Llandaff N. Here also cement was substituted for the old plaster, shutes and windows repaired, and new pavement laid with satisfactory results. The houses, Nos. 1, 2, 3 and 4, Cardiff Road, Llandaff, were repaired, and the back walls cemented. The drains of four houses, 50 to 56 in the same road were found to be defective. They were relaid and trough sinks provided. The five houses Nos. 13 to 21 Chester Street, Pontcanna, were also found to be damp, and were repaired like the above. Numerous other nuisances were abated in Llandaff parish after notice had been served on the owners. Regular inspections have been made in the parishes of Pentyrch owing to the number of old cottages, a great many of which drain into cesspools. With the more abundant water supply nuisances arise from overflowing cesspools and choked drains. A system of sewers will be required for Upper Pentyrch as well as Creigiau in the near future. After some trouble drainage, urinal and closet accommodation have been provided for the "Rock and Castle" public house. At Tyny-waun Row the old privy closets have been abolished, and new earth closets, with moveable receptacles, erected for each house. Proper ash-pits have been provided. Repairs have been effected to Club Row, Gwaelodygarth, and new drains laid. As the result of regular inspections of Radyr parish several minor nuisances have been abated. The old houses on Radyr Court farm, now acquired by the County Council for Small Holdings, have had improved drainage and repairs effected. The general sanitary state of this parish is fairly satisfactory. Six houses in Starbuck Street were repaired, walls cemented to prevent dampness. Eight houses at Waterloo Terrace, Rudry, had improvements carried out, roofs rendered water-tight, and backyards paved.

In the populous parish of Whitchurch numerous nuisances were abated as the result of inspections. New drains were laid from Tynyparc House to the public sewer. Four houses in Summerfield Place had ventilation improved, trough sinks with waste pipes were fixed under water pipes, and otherwise protected against damp. The drains of No. 7 and 8 of the same place were defective, and had to be relaid. New w.c. pans were provided. The seven houses known as Old Post Office Row were damp and unhealthy; and were put in a thorough state of repair. Most of the smaller defects were made good on the attention of the owner being called to the matter. It is generally known and recognised that nuisances have to be abated as soon as possible after they have been detected, and usually very little trouble is experienced in having the work done. Drain testing is done wheresoever there appears to be necessity for it.

Numerous visits were paid to infected houses. The whole question of disinfection was recently considered by the Sanitary Committee, and their recommendations were adopted by the Council. Briefly they were these:—If the patient was nursed at home, or there was a death from tuberculosis or cancer, the bedding, etc., should be disinfected by superheated steam, and the rooms, including walls, furniture, etc., sprayed with formalin solution. Where the patient was removed to hospital within two days of the onset of the illness, it would be enough to soak the bedlinen, clothes, etc., in carbolic lotion before boiling them, and to thoroughly spray with formalin the room and contents before scrubbing with carbolic soap. The Inspectors were to see for themselves that everything was done thoroughly, and not merely to issue instructions. If the premises are verminous, I recommend fumigation with sulphur in the first place. The Council carry out disinfection gratuitously, only charging cost of hiring in some cases.

SCAVENCING.

Owing to the rainy weather which prevailed last year this work was often very trying and heavy, as the refuse receptacles had no covers. All parts of Llandaff parish was scavenged three times a week; and it was done by the Council's own men. Mr. Lewis compliments the contractor for

Llanishen parish as having carried out his work very well. There are a number of cesspools, which are emptied as required at your expense. Several complaints were made of overflowing cesspools in the parish of Llanedarne. It is urgently required that the new sewerage scheme should be proceeded with as soon as possible. The scavenging of Penttyrch parish has been done fairly well by the different Contractors. So has that of Radyr. Rudry, Rhydygwern, and Van has each a separate scavenger, who removes house refuse and the contents of earth closets two or three times a week. St. Andrew's parish has been divided into two districts, the one being done twice, and the other thrice, a week. Through negligence at Eastbrook, the Inspector had the work done at the cost of the Contractor. Two of the Council's waggons are constantly at work in Whitchurch parish, every part receiving regular attention. On the average thirty-six loads per week are collected. It is becoming increasingly difficult to find suitable and convenient refuse tips. If some use could be found for the heat engendered, refuse destructors might be provided at a comparatively small cost of working.

WATER SUPPLIES.

This important matter always receives first consideration. There was no drought as the summer was wet. The numerous public and private wells throughout the district were maintained and protected. Water was turned into the new Reservoir for Upper Penttyrch on the 15th March: and in December a Local Government Inquiry was held at Gwaelodygarth for sanction to borrow £850 to carry out a scheme to supply Lower Penttyrch, water being taken in bulk from the Cardiff Corporation mains. Permission has since been obtained for this work. Garth Place and cottages on the mountain at Rudry are worse off than any part of the district, being dependent on any local springs or the brooklet, which are liable to pollution. The Council applied to the Tredegar Estate for permission to make use of the strong spring on the upland, but the conditions imposed were so onerous as to be prohibitive. Inspector W. Morgan specifies the following improvements in water supply:—Tanks fixed to three cottages at Twynrodyn, to two cottages at Bonvilstone to White's

cottage, Welsh St. Donatts, and cistern repaired at two other cottages. Pumps repaired at Greenway, Bonvilstone; Pengareg, Llancarfan; Pwllwyn and Broadway, St. Nicholas; Penmark; Leckwith; and Drope, St. Georges. New top fixed to rain water tank at Twynyrodyn. Seven samples of water were taken to the Public Health Laboratory for analysis.

SEWERAGE.

Small extensions of sewers have been made at Allensbank Road, on the outskirts of Cardiff, and at Penturnpike, Dinas Powis. The contract for Cefncoed Road, Llanedarne, has just been let. A scheme for Creigiau, Pentyrch, is under consideration; and that for Pentyrch and Penygarn villages may be left in abeyance for the present. The question of the disposal of the sewage of Ely, Fairwater Grove, and Llandaff City has been discussed in every aspect by the Council. Whether to extend the present disposal works near Leckwith Hill, or to arrange terms with Cardiff Corporation for its reception into the Western Sewer, which the parishioners seemed to favour as being more permanent. The Llandaff Sewerage Sub-Committee after several meetings with Cardiff Public Works Committee have not yet arrived at an agreement.

STREET WORKS.

Private street works have been carried out as building operations extend, the more important being parts of New Zealand, Canada, Australia, and Newfoundland Roads: the completion of this work should be pressed on with as far as the conditions permit. There are also finished Brook and Wroughton Roads, Ely; Driscoll Road and The Gardens, Morganstown, Radyr; Alfreda Road and Heol-y-forlan, Whitchurch. The District Roads generally are maintained in an excellent state of repair, being in this respect an example to some of our bigger neighbours. Dangerous corners of roads are gradually being abolished, thus adding greatly to the public safety of wayfarers.

DAIRIES, COWSHEDS, AND MILKSHOPS.

Registered in District No. 1	...	151
Registered in District No. 2	...	89

There is a reduction of two in the former and an increase of twelve in the latter division; or a net gain of ten. Mr. Lewis reports a steady improvement in dealing with milk. Limewashing is regarded as a necessity: greater care is being taken to wash the hands before milking, in straining the milk and storing it in separate premises. But the grooming of the cows is seldom done, perhaps, by not more than two or three cowkeepers. Several cowsheds have been greatly improved by providing better floors, etc. The following may be mentioned: Heath Farm, Fair Oak. Coeddygoras: Tyfry, Drope, Castle and Pentwyn, St. George's: Caia and Alvas, St. Nicholas; Pwll-y-myn, Peterstone; Cross Green, Llancarfan: and Village Farm, Bonvilstone. At Radyr Court Farm, the County Council has converted some of the buildings into cowsheds for the Small Holders, efficient drainage being provided in every case.

SLAUGHTER HOUSES.

There are ten registered in No. 1, and seven in No. 2 District, being an increase of one in the former. These have been regularly inspected and maintained in a clean state. Visits are paid as often as possible on days of slaughtering. The meat is of good quality, and usually the animals have been fed locally. A Regulation requiring farmers and others to notify to the Inspector the days on which they intend to slaughter animals for human food would greatly simplify efficient inspection, and would involve no hardship.

As already stated, arrangements are about to be made by which these inspections will be made systematically and more thoroughly.

DISTRICT NO. 1.

LIST OF NUISANCES, &c., ABATED, AND OTHER
WORK.

Inspector—WM. LEWIS, Cert. San. Inst.

Notices served to abate nuisances	163
" " to cleanse and repair drains	56
" " to improve closet accommodation	18
" " to repair delapidations to houses	68
" " after infectious disease	79
" " to abate overcrowding	4
" " to cleanse and improve cowsheds	43
" " to provide water supply	6
House to house inspections, houses inspected	185
New houses inspected and water certificates sent out...	226
Visits to infected houses	140
Houses and schools disinfected	89
Samples of water taken for analysis	5
Cesspits and privies cleansed	63
Visits to workshops, factories, &c.	280
Bedding and other infected clothing disinfected (from 26 houses) by steam disinfector	26
	1,451

DISTRICT NO. 2.**LIST OF NUISANCES, &c., ABATED, AND OTHER WORK.**

Inspector—WM. MORGAN, Cert. San. Inst.

Accumulations and deposits	...	...	...	86
Animals kept so as to be a nuisance	...	...	...	42
Bakehouses and slaughterhouses limewashed. &c.	...	...	...	11
Cesspools cleansed, &c.	...	...	...	29
Choked and defective drains	...	...	...	66
Cowsheds cleansed and improved	...	...	...	34
Ditches and water courses cleansed (Eastbrook brook)...				1
Drainage provided	...	...	...	21
Earth closets and privies cleased and repaired	...	...	...	91
Earth closets provided:—Barry Pumping Station, St. George's, 1; Blackland, Bonvilstone, 1; Heolyfelin, Pendoylan, 1; Smithy, Llancarfan, 1; Cement Works, Lavernock, 4...	...	...	...	8
Guttering and downpipes fixed	...	...	...	7
Houses repaired...	...	...	...	86
Houses unfit for human habitation:—Drope Lane, St. George's	...	...	...	1
Houses visited and disinfected (including Wenvoe Schools), and bedding from Sully, Mill Road, Dinas Powis, and Merch Lane, Dinas Powis, to Ely disinfecting station	...	...	...	42
Manure pits provided:—Cross Green, Llancarfan, 1; Pwllmyn, Peterstone, 1	...	...	...	2
Paving, &c.	...	...	...	17

Piggeries, stables, &c.:—New floor to stable at Cross Green, Llancarfán, 1; new floors to piggeries at Village Farm, Bonvilstone, 2; new floors to piggeries at Prisk, Welsh St. Donatts 2	5
Samples of water taken for analysis:—Chemical, Rhoose Village, 1; Bacteriological, Rhoose Village, 1	2
School conveniences cleansed, &c.:—Peterstone, 1; new conveniences provided for Wenvoe, 1 ...	2
Water Certificates granted:—Dinas Powis, from mains, 15; Glyn Cory, private mains, 14; Porthkerry, from mains, 14; Michaelstone-super-Ely, from mains, 1; Sully, from mains, 2; Peterstone, from sunk wells, 3; Bonvilstone, from rain water storage tanks, 1; Llancarfán, from rain water storage tanks, 2; St. Bride's, from a spring, 2	54
Water closets cleansed and repaired	58
Water closets erected	1
Water supply provided to houses	8
Wells cleansed and repaired	9
Workshops cleansed:—Bonvilstone, 1; St. Nicholas, 1; Llancarfán, 1; Porthkerry, 1; Wenvoe, 1 ...	5
Yards and premises cleansed	40
Notices served to abate nuisances	109
Number of inspections made	1,840
Total	2,677

FACTORIES AND WORKSHOPS.

Your Inspectors report that the total defects found in the District were twenty-one, none of them of a serious nature, and all were abated. They consisted mainly in not whitewashing the walls or ceilings at the proper time. The workshops registered in District No. 1 are 156 in number, and 30 in No. 2, or three more than the year before. There are no underground bakehouses.

INSPECTIONS OF WORKSHOPS.

Workshops.	Number	Defects.	Found	Remedied
Dressmakers and Tailors ..	18	...	...	...
Bakehouses ...	33	18	Not limewashed	18
Carpenters and Joiners ...	35	...	...	...
Masons, Carvers, etc. ...	9	...	...	...
Blacksmiths and Wheelwrights ...	25	1	Not limewashed	1
Barbers ...	9	...	...	...
Boatbuilders ...	2	...	...	...
Painters ...	21	...	...	...
Laundries (hand) ...	10	1	Defective drains	1
Boot-repairers ...	12	1	Not limewashed	1
Saddlers ...	2	...	...	...
General Builders ...	11	...	...	...
Total ...	187	21	...	21

The bakehouses are nearly all of recent erection, and are therefore of good type, being provided with light, ventilation, good headroom, solid floors, and a good water supply. They are usually kept clean. The tailors' and dressmakers' workshops are all small, mostly consisting of one or two rooms in a private dwelling-house. So are also the boot and shoemakers and repairers. There was only one outworker.

There are 51 factories, 30 being in District No. 1, and 21 in No. 2. They consist of:—Builder's yard, 1; Breweries, 3 (one Vinegar); Brickworks, 6; Bacon Factory, 1; Jam Factory, 2; Cement Works, 2; Collieries, 3; Corn Mills (water power), 8; Patent Fuel, 2; Foundries and Engine Works, 4; Lime Works, 3; Motor Garages, 2; Stone Quarries, 7; Railway Works, 2; Smith and Wheelwright, 1; Steam Laundry, 1; Tinsplate Works, 2; and Wire Rope Works, 1.

No nuisances in Factories were reported by the Inspector.

I beg again to acknowledge my obligations to Mr. C. H. Priestley, M.Inst., C.E., Waterworks Engineer, Cardiff, for the following records of rainfall at different Stations locally during last year:—

RAINFALL DURING YEAR 1912.

Month	LOCAL SECTION.					
	Llanishen Reservoir.	Lisvane Reservoir.	"Heath" Filters.	Fly Pumping Station.	Cogan Pumping Station.	Trade Street Depot.
	Elevation 155 feet.	Elevation 150 feet.	Elevation 132 feet.	Elevation 53 feet.	Elevation 121 feet.	Elevation 45 feet.
January ...	5.02	4.06	5.14	5.45	5.08	5.01
February...	3.00	2.89	3.22	3.23	3.09	2.88
March ...	6.13	6.13	6.41	6.96	6.66	6.03
April ...	.29	.32	.38	.42	.44	.35
May ...	1.79	1.65	1.86	1.86	2.25	1.79
June ...	6.38	6.00	6.85	7.51	5.96	6.48
July ...	3.51	3.37	3.55	3.48	3.46	2.68
August ...	9.25	8.47	9.28	9.92	9.52	8.28
September.	.86	.80	.86	.93	.69	.84
October ...	4.70	4.08	5.17	5.44	5.51	5.38
November.	2.70	2.56	2.94	3.41	2.84	2.95
December..	7.31	6.28	7.31	7.77	7.50	7.02
Totals ...	50.94	46.61	52.97	56.38	53.00	49.69
Averages.	38.58	39.17	39.74	42.58	38.04	39.12
No. of Years	25 years	49 years	26 years	49 years	36 years	13 years

POPULATION OF, AND BIRTHS AND DEATHS IN
EACH PARISH.

	Population.	Births.	Deaths.	Deaths under 1 year.	Infectious Diseases.	Tubercular Diseases.	Chest Complaints.	Heart Diseases.	Cancer.	Other Complaints
Bonvilstone -	168	4	1	—	—	—	—	—	—	1
Caerau -	250	11	2	1	1	—	—	—	—	—
Lavernock -	126	2	3	—	—	—	2	1	—	—
Beckwith -	112	1	2	—	—	1	—	1	—	1
Lisvane -	340	7	4	—	—	—	1	—	—	3
Llancafarn -	470	6	5	1	—	—	1	2	—	2
Llandaff -	10000	249	98	18	3	14	21	9	6	44
Llandarne -	345	4	2	1	—	—	—	—	—	2
Llanillterne -	169	4	1	—	—	—	—	—	—	1
Llanishen -	1773	34	15	3	—	1	1	—	2	11
Llantrithyd -	138	3	2	—	—	1	—	1	—	—
Llanvedw -	244	1	3	—	—	—	—	—	—	3
Llanvethin -	20	—	—	—	—	—	—	—	—	—
Michaelstone-le-Pit -	105	—	—	—	—	—	—	—	—	—
„ super-Ely	58	—	1	—	—	—	—	1	—	—
Pendoylan -	372	6	2	—	—	—	—	—	1	1
Penmark -	535	12	4	—	—	1	—	2	—	1
Penttyrch -	2325	62	30	6	7	—	7	2	3	11
Peterstone-super-Ely	439	8	5	—	—	1	—	—	—	4
Porthkerry -	181	3	6	1	—	1	—	2	—	3
Radyr -	1250	42	13	2	2	2	2	1	1	5
Rhydygwern -	245	9	2	—	—	1	—	—	—	1
Rudry -	619	14	5	1	—	1	—	—	2	2
St. Andrews -	2181	38	19	2	2	1	1	3	2	10
St. Brides-super-Ely -	90	4	3	—	1	1	—	—	—	1
St. Fagaus -	549	7	4	—	—	—	1	—	1	2
St. George's -	287	6	3	—	—	—	—	—	—	3
St. Lythans -	87	2	1	—	—	—	—	—	—	1
St. Nicholas -	370	4	3	1	—	—	—	—	—	3
Sully -	324	1	5	—	—	1	—	—	—	4
Van -	360	17	3	1	—	1	—	—	—	2
Welsh St. Donatts -	193	2	3	—	—	—	—	2	—	1
Wenvoe -	505	7	8	—	—	—	1	4	—	3
Whitchurch -	9500	245	80	12	8	6	16	4	5	41
TOTALS ...	34750	815	338	50	24	34	54	35	23	167

I beg to remain, Gentlemen.

Your obedient Servant.

R. PRICHARD, M.D., D.P.H.

14, Windsor Place,
Cardiff.



